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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,786	02/23/2004	Tetsushi Kono	01272.020658	5517
5514	7590	04/12/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			GOLDBERG, BRIAN J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/782,786	KONO ET AL.	
	Examiner	Art Unit	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4 and 9-11 is/are allowed.
- 6) ☒ Claim(s) 2,3,5,6 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (20040113966) in view of Del Signore, II et al. (5074690), and further in view of Mochizuki et al. (US 5477963) and Froger et al. (US 6095629). Chung discloses "decision means (66 of Fig 3) for determining whether or not the travel range of the print head is a proper travel range (see Fig 2B and Par [0029])." Thus Chung meets the claimed invention except "an ink tank containing ink to be supplied to the print head and removably mounted on the print head; a restricting member for interfering with the ink tank to limit a travel range of the print head to less than a proper travel range only if the ink tank mounted on the print head is not properly mounted on the print head; ... and control means for performing a predetermined control if it is decided that the travel range of the print head is not the proper travel range."

3. Del Signore, II et al. teach "a control means for performing a predetermined control if it is decided that the travel range of the print head is not the proper travel range (see Fig 8, 124, and col 8 ln 62-63)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a control

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means. One would have been motivated to so modify Chung for the benefit of alerting the user of an error as stated by Chung in paragraph [0048].

4. Mochizuki et al. teach "an ink tank containing ink to be supplied to the print head and removably mounted on the print head (col 2 ln 40-43)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide an ink tank removably mounted on the print head. One would have been motivated to so modify Chung in view of Del Signore, II et al. for the benefit of providing a replaceable source of ink as is common in inkjet printer technology.

5. Froger et al. teach "a restricting member for interfering with the ink tank to limit a travel range of the print head to less than a proper travel range only if the ink tank mounted on the print head is not properly mounted on the print head (see the casing in Fig 2, specifically, the vertical piece to the bottom right of the operational buttons)." The piece of the casing referred to in the figure is a restricting member that has the capability of interfering with the ink tank to limit travel range of the print head if the ink tank is not properly mounted. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have part of the casing be a restricting member. One would have been motivated to so modify Chung in view of Del Signore, II et al. and further in view of Mochizuki et al. for the benefit of determining an error due to a foreign substance or other factor as stated by Chung in paragraph [0048].

6. Regarding claim 3, Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. and Froger et al. disclose the claimed invention as set forth above with respect to claim 2. Chung further discloses "when the decision means decides that the

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travel range of the print head is not the proper travel range it makes a decision on whether the ink tank is properly mounted on the print head and/or on whether an obstacle for a print head movement exists in a path of the print head according to the travel range of the print head (see Fig 2B, Par [0029] and Par [0048] In 1-8)."

7. Regarding claim 5, Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. and Froger et al. disclose the claimed invention as set forth above with respect to claim 2. Froger et al. further disclose "wherein the restricting member comprises a housing material of the ink jet printing apparatus (see the housing in Fig 2, specifically, the vertical piece to the bottom right of the operational buttons)."

8. Regarding claim 6, Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. and Froger et al. disclose the claimed invention as set forth above with respect to claim 3. Chung further discloses "wherein the obstacle for the movement of the print head is a protective packing material for the ink jet printing apparatus (Par [0048] In 3-4)." Del Signore, II et al. also further disclose "wherein the obstacle for the movement of the print head is a protective packing material for the ink jet printing apparatus (col 6 In 46-50)."

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chung in view of Del Signore, II et al., and further in view of Froger et al. Chung discloses "determining whether or not the travel range of the print head is a proper travel range (see Fig 2B and Par [0029])." Thus Chung meets the claimed invention except "providing a restricting member to interfere with the ink tank to limit a travel range of the print head to less than a proper travel range only if the ink tank mounted on the print

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head is not properly mounted on the print head; ...and performing a predetermined control if decided that the travel range of the print head is not the proper travel range.”

10. Del Signore, II et al. teach “performing a predetermined control if it is decided that the travel range of the print head is not the proper travel range (see Fig 8, 124, and col 8 ln 62-63).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to perform a predetermined control. One would have been motivated to so modify Chung for the benefit of alerting the user of an error as stated by Chung in paragraph [0048].

11. Froger et al. teach “providing a restricting member to interfere with the ink tank to limit a travel range of the print head to less than a proper travel range only if the ink tank mounted on the print head is not properly mounted on the print head (see the casing in Fig 2, specifically, the vertical piece to the bottom right of the operational buttons).” The piece of the casing referred to in the figure is a restricting member that has the capability of interfering with the ink tank to limit travel range of the print head if the ink tank is not properly mounted. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have part of the casing be a restricting member. One would have been motivated to so modify Chung in view of Del Signore, II et al. for the benefit of determining an error due to a foreign substance or other factor as stated by Chung in paragraph [0048].

Allowable Subject Matter

12. Claims 1, 4, and 9-11 are allowable over the prior art.

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13. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose or suggest the claimed print head with a plurality of kinds of ink tanks wherein the decision means or determining step “determines, based on the detected travel range, at least one of the kinds and number of the ink tanks that are not properly mounted on the print head” in combination with the remaining claim elements set forth in claim 1 and 11, and the claims that depend from them.

Response to Arguments

14. Applicant's arguments with respect to claims 2, 3, 5, and 6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG



April 4, 2006

Binh Nguyen
Primary Examiner
Technology Center 2800